

NORTH AND SOUTH DAKOTA HORTICULTURE

APRIL, 1941



Our migrating President in Florida, where,
apparently his shadow did not become less.



THE DUCK HAWK

by
O. A. Stevens

O. A. Stevens

The American bird known as duck hawk is a race of the well known peregrine falcon of Europe. The species, as a whole, is almost world wide in its distribution. Some sixteen races are recognized by recent authorities. The typical one inhabits northern Europe, rarely crossing the mountains southward. Other forms appear in southern Europe, Africa, various parts of Asia, the East Indies, Australia and South America.

The last named continent seems least represented, one poorly known form being found in the extreme south and another bird, which is considered a distinct but closely related species, ranging northward to Mexico. Only one other form occurs in North America, and that is known as Peale's falcon from the Alaska region.

The word "peregrine" comes directly from the Latin term used for a foreigner, a traveler from other lands. It was applied to this hawk as far back as the thirteenth century by Albertus Magnus, a German writer, who described the animals and plants known at that time. It was applied to birds captured during migration as distinguished from young ones of the same species taken from the nest. The peregrine was one of the most popular of the hawks used in falconry (See Nat. Geog. Mag., Dec. 1920).

The duck hawk is a larger bird than the pigeon hawk, about as large as a Cooper's hawk or a little larger than a crow, as one writer suggests. It has the pointed, triangular wings characteristic of falcons and flies very swiftly. The underparts are light buffy with small brown spots forming broken bars or streaks, in the young birds strongly streaked. The top of the head is black and a prominent, pointed black streak extends down from each eye. The tail is long and pointed, the feet large and yellow.

The duck hawk is an uncommon bird and inhabits rocky cliffs beside lakes or streams. Here it makes its nest in recesses of the rocks, scarcely building any nest and laying three or four, sometimes six eggs which are about two inches long and usually rather heavily marked with brown. The male takes turn at incubation which had been stated to be 28 days but a recent careful observer reports 33 to 35 days. Occasionally a pair will nest on a tall city building. In migra-

Vol. XIV

April, 1941

No. 4.

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original Office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, So. Dak.

SOUTH DAKOTA OFFICERS

Dr. N. E. Hansen, President Emeritus...Brookings, S. D.
H. E. Beebe, President.....Ipswich, S. D.
Geo. W. Gurney, Vice-President.....Yankton, S. D.
W. A. Simmons, Secretary and Editor...Sioux Falls, S. D.
H. N. Dybvig, Treasurer.....Colton, S. D.
Mrs. F. Briley, Librarian.....Dell Rapids, S. D.

MEMBERS OF THE EXECUTIVE BOARD

J. C. Anderson, five years.....Eden, S. D.
J. B. Taylor, four years.....Ipswich, S. D.
E. A. Gates, three years.....Rapid City, S. D.
F. X. Wallner, two years.....Sioux Falls, S. D.
L. L. Davis, one year.....Brookings, S. D.

NORTH DAKOTA OFFICERS

Dr. Geo. F. Will, President.....Bismarck
Frederick Wolhowe, 1st Vice Pres.Verendrye
Judge M. O. Thompson, 2nd Vice Pres.Lisbon
H. A. Graves, Secretary..... Fargo
E. L. Shaw, Treasurer..... Fargo

TABLE OF CONTENTS

	Page
The Duck Hawk, O. A. Stevens	38
Newsletters, H. A. Graves	39
S. D. Trees, E. H. Everson	40
Manitoba News Letter, W. R. Leslie	41
Presidents Corner, H. E. Beebe	42
April Notes, W. E. H. Porter	43
Fruits & Vegetable Notes, F. X. Wallner	44
Secretary's Corner, W. A. Simmons	45
Questions & Answers, L. L. Davis	46
Book Reviews, W. A. Simmons	47

tion single birds may be seen. They nest all over Canada, northern United States and mountains of the Southwest, sometimes wandering as far south as Panama in winter.

This hawk is an acknowledged killer of birds but it is too uncommon to be of much importance. Dr. Roberts estimates that in Minnesota there are probably not over two dozen nesting pairs in four localities and that the number has not changed appreciably in many years. These birds were used in falconry because of their

(Continued on page 47.)

NEWSLANTS

by
Harry A. Graves



H. A. Graves

The orange tree growing in the Motor Inn, Gus Scholley, proprietor, at Wishek, North Dakota, has attracted considerable attention. A recent issue of the Mississippi Valley Lumberman devotes considerable space to Gus's orange business and the columnist says he wouldn't be surprised, after seeing the orange, to learn that the "Motor Inn" nestled among Palm trees.

According to the American magazine, there is no telling what we may be eating a year from now. "Take grass," says the article, "three chemists in Kansas City discovered that blades of grass from an ordinary lawn contain practically everything you and I need in the vitamin line. Sterilized, over-dried in quick temperature, bleached, and powdered, 12 pounds of grass are said to contain more vitamins than 340 pounds of fruit and vegetables. Today, thanks to those chemist chefs, you can buy packaged grass powder for less than 10 cents. The containers keep the grass fresh for about two years for use in your pancakes, breakfast foods, breads, desserts, and candy."

I heard Dr. Hughes, biochemist at Kansas State College, give a very illuminating talk on this subject of vitamins about a month ago. While he stressed the newness of vitamins, he said the people of biblical times knew that absence of things green in the diet could play havoc, even to causing blindness. Read Jeremiah 14:4, 5 and 6 and draw your own conclusions. Dr. Hughes only told us the book and not the chapter or verse. I read 14 chapters of Jeremiah before I found it.

Mrs. Kannowski, past president of the North Dakota State Horticultural Society and Park Superintendent at Grand Forks, passes along her observations on *Taxus cuspidata*. I quote direct from her letter: "You referred to *Taxus* in the last number of the horticulture magazine. In 1936 we planted some lining out stock in our park nursery, and included were both the upright and the spreading form of *Taxus cuspidata*. They have been growing slowly there since and seem to be hardy. They are slow growers you know, and it will probably be sometime before we'll have a size large enough to plant out in the parks. Direct sun is a very poor place for

them, as they need semi-shade and some protection, also care, which they don't always get".

J. V. Enger, glad breeder from Oakes, makes the generous offer of glad seed to any member who would like to start new glads from seed. He will send some seed and instructions to members who are really interested and who send in before April 20. He has several varieties that will bloom from seed if properly handled. Mr. Enger has contributed some fine displays of glads to the annual glad show, sponsored by the Fargo Garden Society. The North Dakota Agricultural Experiment Station has grown some beautiful seedlings originated by Enger of Oakes.

Leonard Graetz, of Hansboro, expresses concern over the fact that he was the only member who turned up in the hobby list with annual flowers as a hobby. I think annuals are neglected, myself, if I have any right to venture an opinion. I saw a new home that was only one year from scratch and it had been made beautiful beyond description with large borders of annual flowers. Leonard still raises a white potato distributed by the North Dakota Experiment Station through the North Dakota State Horticultural Society some years ago. I expect this was No. 86 or No. 87. He likes it especially because of its shallow eyes and good keeping qualities.

From far off Clermont, Florida comes a letter and the annual dues of C. F. Pruefert. He enjoys the magazine and misses northern flowers, such as peonies. He also mentions their planting glads from September 1 to February 1 for holiday blooms in the north. Readers may recall reference to Florida winter grown glads in northern flower shops in a recent issue.

March 13 brings another letter from Leo Krank, of Dickinson. We are truly sorry to learn that Leo's garden was almost completely destroyed by hail July 19 of last year. We also suffered because of this calamity since Leo practically amounts to a garden crop reporter for us in western North Dakota.

Fred McKinnis, of whom there is no whomer when it comes to tomato growing, has moved from Bottineau to St. John, North Dakota, agent for the Great Northern Railway. I knew him first at Emerado where he had good success with Break-O'-Day. He feels that Redskin has no superior in quality.

The Nor'west Farmer and Country Guide, of Winnipeg, has a fine article on McDonald rhubarb in the horticulture division of a recent issue. This reminds us that we perhaps have not emphasized enough the superior quality of

(Continued on page 48.)

MORE TREES FOR SOUTH DAKOTA

by E. H. Everson, Secretary of Agriculture



E. H. Everson

Trees were the first temples of God. They are the noblest members of the plant world. In their presence, one finds peace, quietude, and inspiration. They provide mankind with shade, clothing, shelter, food and fuel. Therefore, he who devotes his time and effort to tree planting and tree culture is one of society's greatest benefactors for while man's length of life on earth is limited to three or four score years, many trees are known to live for centuries. In fact, it is believed the Historic Charter Oak of Connecticut in which that Colony's Charter was

hidden in 1687 was believed to be centuries old at that time. This tree was blown down in 1856. The Historic Washington Elm under which General Washington took command of the American Army in 1775, and which was a very old tree at that time, stood until 1923. Many trees in the Rocky and Cascade Mountains we have reason to believe are from 800 to 1,000 years old. In 1900, a giant redwood tree was felled in California which tree authorities state began its existence 271 years before Christ.

Each year, practically speaking, both the hard and soft wood tree adds a layer of new wood to its bole and branches; and when the bole of one of these trees is cut across and the surface made smooth, the rings of the wood can be counted so that it is easier to determine the age of these trees than most any other living thing. Most of our paper is made from pulp wood. Millions of fine houses and buildings are constructed from lumber sawed from these trees, and millions of these buildings are kept warm from the wood cut from them. Each year since 1933 when our State of South Dakota accepted the provisions of the Federal Clark-McNary Law, the State Department of Agriculture has sold at

cost hundreds of thousands of seedlings of the broadleaf and evergreen varieties.

Through the influence of Julius Sterling Morton, a pioneer newspaper man and tree lover of Nebraska, and who became United States Secretary of Agriculture in President Cleveland's cabinet, Arbor Day was established. A day set apart by proclamation and dedicated to the planting of trees. Arbor Day was first observed in Nebraska on April 10, 1872, and was first observed in South Dakota in 1884. It has been regularly observed each year since then in April by a day designated by proclamation of the Governor. This day should be observed by all our schools and churches—yes, and all our citizens—by planting trees to shelter and protect our homes, schools, churches, and public buildings. Every farmstead that does not have an abundant supply of native timber should have five acres or more of planted trees for woodlot and premise windbreak.

Northern grown seedlings are best adapted to the climatic conditions we have here in South Dakota. It is best to plant trees on ground that has been summer fallowed the previous year, cultivated, kept free from weeds, and kept in a condition to absorb as much moisture as possible. Many groves of trees have died out in South Dakota as a result of the extended drouth years because they had not been protected on the north and west with one or two hedge rows to serve as traps to catch the snow that fell in the winter to furnish supplementary moisture to the rains of the growing season. If the land is rolling or hilly, terracing or contouring will help very materially in conserving the run off water. The grove should be well fenced to keep livestock from destroying the trees. The growing of at least five acres of trees on every farmstead will add very materially to the stability and permanence of our farm homes by making them more attractive and comfortable, providing shelter and protection for stock, birds, and other wild life and supplying fuel, posts, and lumber, all of which contribute to a higher standard of living on the farm.

The packed and postpaid prices per hundred of State trees are lower than ever. The 12 to 18 inch size hardwoods vary from 50c for Cottonwoods to \$1.50 for the somewhat scarce Hackberry. The 18 to 24 inch size starts at 75c and ends at \$1.90. Send to the Department of Agriculture for price and variety lists, or apply to your County Auditor or County Agent. More trees and more grass and more price for South Dakota farmers, I believe to be a worth while objective.



MANITOBA NEWS LETTER

by
W. R. Leslie



W. R. Leslie

Mention was made in a recent Morden Experimental Station letter that Mr. Norman M. Ross, Chief of Tree Planting Division of Dominion Experimental Farms, has been awarded the Stevenson Memorial Gold Medal. The presentation was made happily at the annual banquet of the Manitoba Horticultural Association in Winnipeg, February 13. Mr. Ross was guest speaker at the meetings. Some notes gleaned from his address before the Fruit session are here relayed.

Shelter is recognized as an absolute necessity for successful results along any horticulture line under prairie conditions. The ordinary sequence of events is first the establishment of tree belts for general protection of the farm site as a whole. These should be sufficiently roomy to avoid cramped quarters for garden and fruit plots.

As yet the percentage of farmers growing fruits is comparatively small. Reports recently received from 2,869 farmers possessing fairly well developed tree belts, showed 97 per cent had good vegetable gardens, 41.2 per cent were growing small fruits, and 24.5 per cent tree fruits. Unfortunately, a large number of farms are still without shelter and there, little attempt at growing fruits will be found.

It has been amply demonstrated that fruit of some kind can be grown anywhere on the prairies where conditions are suitable for grain farming. A wider interest is anticipated in the near future as improved hardy varieties are being achieved, and adapted dependable stock is now available from commercial nurseries. The knowledge of zones of adaptability is accumulating and understanding of methods of culture is extending. Individuals at widely scattered points have made an outstanding success and their accomplishments are stimulating others. The late A. P. Stevenson carried on persistently in spite of enormous difficulties and innumerable failures, and led the way for fruit growers on these plains.

Where a choice of locations for fruit growing is available, a northerly or easterly slope is generally conceded to be the most favourable but the average farmer need not hesitate to start in

(Continued on page 48.)

NEW CANADIAN and N. DAK. FRUIT VARIETIES

Offered to Readers of Horticulture by
THE NORTHWEST NURSERY CO.

Horticulturists of the northwest have admired the outstanding work accomplished at the Canadian Experimental Farms of both Morden and Ottawa working in close collaboration. In their remarkable orchards at Morden are hundreds of new varieties. Some have been named and released for distribution. Every one of these are of outstanding merit. We have a few of these for distribution this spring. We wish to see them go into the hands of real plant lovers who will later make reports. To members of the Horticultural Societies of North and South Dakota these apples are offered at one-half our list price. A brief description is given which does not attempt to do justice to the high quality of these new varieties. The Morden Station does not release new things unless they are worthy of merit.

List price of the following new apples
4-5' is \$1.00 each. Members of the
Horticultural Society can secure
these at \$0.50 each.

MANRED APPLE—Seedling of Anisin, medium to small, bright red over yellow, small core, thin skin, fine grain, sub-acid flesh, season early winter.

MANITOBA SPY APPLE—Seedling of Patten, fruit large, yellow washed with red, striped, flesh juicy tender, pleasant mild acid, season to February. Suggestive of Northern Spy in size, shape and color.

GODFREY APPLE—Seedling of Patten. Fruit medium sized, yellow heavily washed crimson and waxy bloom. Flesh fine crisp, juicy, aromatic, sweet sprightly, season to March. A good general purpose apple. Note—Mr. Godfrey is a horticulturist at Morden Station.

MANITOBA APPLE—Seedling of Duchess, size medium, yellow lightly blushed, texture smooth and fine, flesh juicy. Melting, spicy, pleasant sub-acid, season to March. Excellent dessert or sauce apple.

WAUKON APPLE—Developed at Fargo. Similar to Wealthy in color and quality. A very hardy and thrifty tree. Fruit indicates cross between Wealthy and Hibernial.

RED RIVER CRAB—Developed at Fargo by Professor Yeager. Dolgo Crab crossed with Delicious. Size of Transcendent, color deep red, crisp, clear flesh with pleasant aroma, prolific, fine tree. We believe this to be one of the finest trees in existence today, either for home or commercial use.

MELBA APPLE—Seedling of McIntosh, produced at Ottawa. A hardy McIntosh apple of very high quality, yielding well at Morden.

NOTE: Turn to the Manitoba News Letter in February Horticulture. Mail your order to:

THE NORTHWESTERN NURSERY CO.
VALLEY CITY, NORTH DAKOTA

April
1941

PRESIDENT'S CORNER

by
H. E. Beebe

APRIL APPEALS



H. E. Beebe

The time has come to put some of our good winter resolutions and our ambitions after seeing the pictures in the Nursery Mens catalogs, into gear.

In general Dakota seems to have had more moisture than usual and it should be a favorable season. I was certain spring had come when Ford sent his 1940 report, and probably he will soon be putting in several hundred thousand of trees, and what is more they will grow. 30 years from now A. L.'s name will be better known than Henry's.

Alice Chaphe of Vermillion the South Dakota indoor winter grower writes, "I had a beautiful curtain of Heavenly blue morning glories across one of the arches in front of my window." May there be many more of these next winter.

If the reader is outside of a city, he will be interested in the project "Opportunities for Better Living", in charge of Nora Hott of State College. Along with more prosaic matters, she mentions improving the home surroundings and planting shelter belts. Get Hott and secure this bulletin.

In the St. Petersburg sunken garden was this sign,

"Flowers are lovely
Where they grow,
Save them, enjoy them
Leave them so."

It was rather difficult to think of that when upon arriving in Alderman's City of St. Paul, the storm starting around Fargo struck at 45 miles per hour, and 20 degrees below. However having been born in Dakota, I have seen storms before, and they will not erase the memories of the ocean beach in Florida, nor the promise of the blue crocuses this spring.

SPRING SAUNTERINGS

You may talk of signs of weather,
Of coming days, you may sing;
But when you sit on a good sharp tack,
It's a sign of an early spring.

I was delighted with the December cover of this magazine, showing Dr. Leslie of Manitoba and our Dr. N. E. Hansen inspecting a blossom-

ing plum tree branching close to the ground. The new members for 1941 of this Society should make their selections now of Hansens improved stock, that is offered as premiums.

Upon considering Wallners bee tree, I must vote for cutting down trees whose branches are half dead in South Dakota, and plant some of the new ones put out by our efficient Secretary of Agriculture E. H. Everson, as per his very sensible article in the January, February and March issues.

In the, "Maybe You've Heard," column on the inside front page of the Argus Leader recently our good friend Winona Axtell Lyon was mentioned in connection with her gift of the Sioux Empire Fair Grounds. Whenever I see peaches I think of Mrs. Lyon, and her taking friend Weller for a ride at the Sioux Falls meeting. I sincerely trust her peach trees will be unusually fruitful this year.

Some years ago Prof. Geo. Huntington of Carlton College at Northfield, Minn., wrote a poem, "The Northern Spring," and I can give no better message for those who are worrying about their personal, or the state and national and world conditions, than the following—

So, be my world as winter cold,
And be my garden piled with snow,
I know that brighter skies will shine
And softer winds will blow.
There shall be blossoms in the field,
There shall be singing in the wood,
And all the evil of my lot,
Shall surely turn to good.

By the way, in the Conservatory in the St. Louis Public Gardens, the Sunday before, I found one lone bird, and what do you think it was—a female English sparrow, very fat and tame.

In the corner of this sunken garden was an orange colored Trumpet vine growing all over a tree 20 feet tall.

The City of Webster reports that the, "Second Summer, had scarcely started when winter came again, almost as unexpectedly on Armistice Day. After it was all over John Swenson ventured out and picked himself a fine bouquet of sweet alyssum and calendulas from a melting drift.

Earlier, Nov. 3, to be exact, Mrs. Steve Pearson had selected these early summer blossoms from her garden: larkspur, verbenas, pinks, petunias, baby breath, phlox, gaillardia, chrysanthemums, bachelor buttons, daisies, calendulas, memorial daisies, California poppies, snap-

(Continued on page 47.)



APRIL NOTES

by
W. E. H. Porter



W. E. H. Porter

While it is customary to associate the arrival of April with the opening of buds, here in North Dakota it signifies a triumphant deliverance from winter's long and tedious frost bondage. Feb. 6th terminated a haphazard thaw, with 40 above zero on Jan. 31st, enabling roads to be broken out and held, thru the deep snow. Indoors, my 3 Dutch hyacinths lavish their sweet fragrance and waxy bloom, in competition with golden sprays of a wallflower that refuses to be classed as an annual. But beyond compare is the Loraine begonia, whose arching sprays still dominate the palmate foliage, as since mid-December. Again I ask what better flower could grace Dakota gardens than the evergreen Phlox divaricata? Fragrant, large clustered, pale violet flowers from earliest spring to late summer. About a month ago I promoted a very lifeless looking specimen from the cellar, to a south window, and now flowers are on every stem. With this delightful child of nature, bloom comes naturally with the fresh green leaves. Hereford Gardens, of Oakford, Ill., supply this and many other wildlings, but as regards the rest of my indoor garden, with its monotonous green, the less said the better. Like Keat's nightingale, the English refuse to be trampled down, for Thompson & Morgan's belated catalog, much abridged and minus colored illustrations, has arrived. Nowhere else can cranesbills (erodiums and geraniums) be obtained in such variety. I wish that I could agree with some fellow members on the subject of English sparrows. If they do any good I am quite sure it is unintentional, but as for their crimes, they foul everything they come in contact with, crawling thru the smallest crack to get some place that they shouldn't. Pity the cows that have to eat hay from a loft where they have been roosting; a few hundred will eat as much wheat as my poultry and most years they are one jump ahead of me in the current patch, quarreling and driving away any song bird less aggressive than themselves. It would take too long to list all the seeds and seedlings of valuable things they have ruined and on a prairie farm where the silence is positively deafening their ceaseless chattering is down-

right nerve wrecking. As with other vermin I find gunning and poisoned grain the best way of keeping them in check. Enigmatic is the predelection for certain pests. I recollect when a boy, carrying a white rat in my pocket for a pet. I am decidedly in favor of black currants, with distant but vivid memories of juicy English tarts, also a basis for superb jelly, tho Hansen's Siberian species is just as hardy and prolific, with a thinner skin, juicier content and improved bouquet.

Feb. 18th and 19th, 28 below and radio forecasts continued cold. Burgess Co. of Galesburg, Mich., lists the evasive Dianthus Beatrice quite worth having, salmon pink bloom all summer, fragrant in clustered heads, apparently after the order of Sweet William. Also a little known hedge plant, the blue leaved arctic willow, Salix purpurea, a native of tundra, making a low and dense growth. Have just received a very interesting letter from Mrs. P. L. Banks of Clark, S. D., a fellow member of our Society, furnishing data on Dianthus Beatrice, from which I quote: "This plant is very compact, a shorter foliage than the several other varieties of this plant and has entirely different colored foliage. It is much more pointed and is as silvery as sage and with the dew on it, has a blue cast. Its blossom is not outstanding, single and very indented petals and very, very fragrant." Another Dianthus that I seem to have at last run down is "Rose cushion", listed by Borsch of Maplewood, Ore., this is his description: "Brilliant rose flowers, smothering the compact grey cushions of foliage, like a little grey hedgehog when out of bloom." Many years ago a friend who alas, is now only a memory, gave me this pink, which has proved the hardiest evergreen in the garden. I have divided it at any and all times and divisions have promptly taken hold and spread. Perhaps our limy humus is just what it needs for heat, drought, cold or wet affect it not at all. Borsch's offerings are as usual irresistible; for me, one of his "must haves" is Delphinium Primrose, double cream with black bee. As always it is headquarters for choice specials unobtainable elsewhere, one of which is a pink variety of white madwort Alyssum spinosum, while his collection of Daphnes is unique. While on the subject of Daphnes, F. L. Skinner of Dropmore, Man., Canada, lists seeds of a new one, Geraldiana. Does any member know of it? Page Mrs. Banks. Other specials include a yellow anemone, white Lychinis chalcadonica, cut leaved thorn, a weeping caragana, etc. Thru the good offices of Oscar H. Will & Co., it is made possible to pur-

(Continued on page 47.)

April
1941**FRUIT AND VEGETABLE NOTES**

by F. X. Wallner



F. X. Wallner

The California Chamber of Commerce is demanding a recount of the tomato can pack in Maryland because California has lost first place by 21,854 cases. The total pack for 1940 in the U. S. is over 25 million cases. In 1914, 1917 and 1918 there was a pack of 26 million cases, but the record pack in 1930 was close to 34 million cases. As reported in the February issue, the total pack in North America in 1887 was only 3 million cases. At the last American Vegetable Growers meeting there were on exhibit seedless watermelons, squash, peppers, eggplant and tomatoes.

The orange crop for 1940-1941 is the largest on record, 82,261,000 boxes. The last crop was over 78 million boxes. Florida produced almost one-third of this crop while California produced over 48 million boxes. On page 12 of the *AMERICAN FRUIT GROWER*, Iowa, Kansas, Missouri and Nebraska college heads tell of the big loss to fruit growers in these four states. Western Illinois also finds severe losses in some varieties and strangely enough, the main losses were found in the age ranges of 6 to 15 years, losses being negligible in trees aged less and more than these ages. Anyone about to plant fruit trees should read the report from the 5 states and on page 28 there is an interesting report about the Carpathian walnut.

The editor of the *ARGUS-LEADER* is not the only one that was shocked by the scanty attire the lady on our February cover; one Garden club member asked if I had anything to do with it, and to telephone calls I just answered that the editor thinks we may sell more magazines at the news stands with a sensational cover. Parsley, brocoli, kale and cauliflower all have 2 or 3 times as much Vitamin C as citrus fruits and, parsnips, New Zealand spinach, cantaloupe and kohlrabi have as much as orange juice. Potato growers in 8 western states will sell 12,500,000 bus. of No. 2 potatoes for 25 cents per 100 lbs., for stock food. This will help reduce the large surplus that is on hand in the potato districts of the far west. The Secretary's report for January 1941 shows receipts of \$115.65, expenses \$40.95, a profit of \$74.70. This is by far the best month since we have had a monthly report, the last six years.

Being elected to head the Garden club for

the third time means considerable work, as the 25 meetings a year must be interesting to get out the good attendance we want and usually have. But with the cooperation of the different committees and the Secretary, with his coffee and lunch, it is made much easier. Out of town speakers with illustrated slides or movies, usually are the best, altho the colored movies of our yards and parks have been very popular. The quizzes on horticultural topics bring out interesting questions and answers. The seasonal flower shows are always worth while and the summer picnics, particularly that given annually by Mr. Dybvig, are always well attended. The drawing for the plants, flowers, seeds and other things brot in are always great sport for all. Surely there is room for a garden club in every community, however small.

One of the prayers of the President on inauguration day, was as follows: "Almighty God our heavenly Father, guide, we beseech Thee, the nations of the world, into the way of justice and truth, and establish among them that peace which is the fruit of righteousness, that they may become the kingdom of our Lord and savior Jesus Christ."

THE PIONEER SEED HOUSE

*Nursery-Greenhouses of
the Northwest*

Founded at Bismarck, in Dakota Territory, in 1882.

Specialists in Garden Seed, Trees, Shrubs,
Fruits and Flowers, adapted
in Hardiness, Drouth Resistance and Vigor to
Dakota conditions.

**WILL'S
SEEDS
GROW**

FREE CATALOG

Ready January 1st of Each Year

OSCAR H. WILL & CO.

BISMARCK, N. D.



SECRETARY'S CORNER

by
W. A. Simmons



W. A. Simmons

The Secretary was recently summoned to the home of Mrs. Louise D. Black, in our city, to see several gorgeous hybrid Amaryllis in bloom. They were grown in the large No. 5 juice cans and the bulbs were almost entirely covered with the potting soil. Mrs. Black told me she takes them out of the cans and sets them in the garden, every summer, where they can grow on and become in the mood to bloom gloriously in the late winter. On taking them up in the fall and repotting them, she rests them for a few months, the old leaves drying off entirely. Then when they resume growth, the flower buds are the first evidence of the continued existence of life in the bulb..

The March issue of BIOS, a quarterly magazine published by the Beta Beta Beta Biological Fraternity at Mount Vernon, Iowa, contains a 72 page Biography of Dr. N. E. Hansen by our friend and fellow life member Mrs. H. J. Taylor. It is intensely interesting and contains pictures of the Doctor, taken at various ages, from 8 to the present, including some taken in Siberia, Korea and Manchuria. In conclusion she writes: "Dr. Hansen's life has been a great adventure. Not only America but the whole world has been benefitted and enriched thru the life of America's first Agricultural Explorer and plant breeder for the prairies and the plains." It is very well written and is well worth reading.

In sending in his annual dues, Mr. A. L. Young of Brooks, Alberta, Canada, writes, in part, as follows: "We had a lot of nice fruit in 1940. I think Fiebing was the best plum and No. 1007 from Minnesota was as good as any among apples. There was a lot of grapes, and my No. 3 Pioneer Pear is still the best that we have in pears. I had a lot of Montmorency, Besseraian and Cerise cherries, a good crop of Black walnuts, Butternuts, Horse Chestnuts and Hazel, and I have a lot of hybrid Hazel with commercial Filbert pollen, and Walnuts crossed with Broadwein pollen. The Carpathian walnut seems to be more hardy than the Heartnut Japanese walnut and the American sweet chestnut, or hickory. However they have not had a real hard winter yet and I expect that my Hybrid walnuts will likely be the one improvement in walnuts."

In sending in his renewal promptly, as is the case with all our Canadian friends, Mr. John A. Wallace of Campsie, Alberta, writes as follows:

"The summer of 1940 was very erratic here. Lots of moisture in spring started growth off with a bang, but dry weather started in early June and lasted till the 25th of July, then it rained almost every day till the 10th of August, after that there was not enough rain fell to lay the dust till a couple of days before freeze up.

"Despite the off season, we had an extra heavy crop of most kinds of fruits, both wild and cultivated. The exceptions were raspberries and June bearing strawberries. Part of the trouble with the Rasp's was that few new canes were sent out due to drought in 1939. The Gem ever-bearing strawberry gave a good crop and seems to stand dry weather better than most strawberries.

"Plums of the Nigra group, the surest croppers for this district, such as the Olson, Assiniboine. etc., and many seedlings fruited heavily. Boughen's Dandy fruited a few plums for the first time, they were very attractive. Sandcherries fruited too heavily, and were smaller than usual. Brooks, Manmoor and Mando, are much superior to the older kinds.

"Amelanchier, or Saskatoons as they are commonly called, were about the best crop I have ever seen in 30 years. Many very large fruited, and high quality bushes, were ear-marked for propagation in our test grounds, where several good ones fruited this past season.

"In Tomatoes, the following kinds were grown. Bison, Fargo, Redskin, N. D. No. 38 and a new one N. D. No. 40 (now known as Bounty) sent for trial by Prof. Harold Mattson. It proved to be an outstanding variety over all the others listed. Redskin is a good early kind but we found it too strong for canning. Bison, our main kind, yielded it's usual heavy crop, it's main fault is too many rough ones. If Bounty stands up in performance as in 1940 it will no doubt replace the Bison."

We have found it to pay to pot up a few bulbs of the umbellatum or elegans lily bulbs for inside blooming each fall. You probably haven't all got as generous neighbors as Mr. Dybvig and Mr. Wallner who nearly every fall, give me large bulbs for this purpose, but most of us have them in our gardens, where we can dig them in the fall. The No. 5 juice cans make ideal containers for them as they have depth, as well as plenty of room and they are the easiest of all lilies to force in the house. Just now we have one pot with 12 blooms and several others ready to bloom in a few days.



QUESTIONS AND ANSWERS

by L. L. Davis



L. L. Davis

Please send me some information as to how sheep manure compares to Vigoro for fertilizer, how many pounds should be used per square feet, etc.

Sheep manure, fresh from feeding stalls, consists of 64% water. It contains 28.7 pounds of nitrogen per ton of manure, of which 42% is water soluble. There are 10.1 pounds of phosphate, expressed P205 per ton of manure, of which 58% is water soluble. There are 25 pounds of potash, expressed as K2O, per ton of manure, of which 97% is water soluble. Sheep manure is very valuable due to the fact that such a large percentage of nitrogen, phosphorus and potassium are water soluble and are immediately available to the plant. Sheep manure, is, however, slower in action than Vigoro. It should be used at the rate of two to three tons to the acre, preferably as composed manure of at least one year of age.

Vigoro is a fertilizer referred to as four parts nitrogen, eight parts phosphorus and six parts potash to which has been added many other trace elements. It should be used according to the manufacturer's directions which is at the rate of 10 pounds per 1000 square feet. I prefer to apply it in three different periods, one just as the grass starts its new growth in the spring; second, in the first part of June, and third, in September, dividing the total of 10 pounds between the three treatments.

Would you please give me some information regarding the mulching of potatoes?

I am sure I would not mulch potatoes until after they have come out of the ground and been cultivated at least once. If grasshoppers are bad I think there is a strong possibility that mulch will increase grasshopper damage to potatoes or to any other crop. I would much prefer to prepare the soil eight to ten inches deep and plant seed at the rate of seventeen bushels per acre. Each seed piece should weigh at least one and one-half ounces. At this rate of planting, the vines of Bliss Triumph or Red Warbas should so shade the ground that mulching will be unnecessary. Comparatively deep cultivation may be desirable, especially in the heavy soils, for the first cultivation, but I believe it best to cultivate at a shallow depth after that in such a way as not to hill up the potatoes.

I want to transplant a wild thornapple tree, about eight feet tall and with a trunk two inches in diameter. Would you please tell me how to do this, and also what time of year it should be done?

I would suggest that the wild thornapple tree mentioned in your letter be transplanted next spring within one month after the frost goes out of the ground. You should get as much of the root system as possible, and preferably with a ball of soil. This ball of soil can be kept intact more easily if you dig a trench around the tree about eighteen inches from the trunk of the tree and to whatever depth is necessary to get the roots.

I believe it would be desirable to brace the newly transplanted tree with three wires attached to stakes surrounding the tree. It would be well to protect the tree from girdling where the wires are attached with heavy cloth, or, as I sometimes do, with a piece of rubber hose split lengthwise so it will protect both sides of the tree.

My tomato vines seem to be growing too much. The branches get so large that they fall to the ground and new sprouts come from them. I have fertilized the soil the last three years.

There is little doubt that your garden, where your tomatoes are growing, is too rich in nitrogenous fertilizer. I would suggest that you cease adding manure or commercial fertilizer high in nitrogen. I would suggest that a handful of bone meal be scattered on the soil in the vicinity of each tomato plant when it is set in the garden in the spring. Do not put the bone meal in contact with the roots or the stems of the plant. The plants will not make so much growth if this treatment is followed.

I would like some information as to the growing of Chinese Elm hedges from the seeds—planting, time, care, cultivation and thinning of the plants.

Chinese elm seedlings are grown from seed planted immediately after the seed matures in June. With ordinary storage conditions, the seed will not survive until the following spring. For this reason the seed is planted, as soon as it matures, in a well-prepared seed bed. It is especially desirable to have irrigation water available. The seed is planted as one would lettuce. After planting, it is well to water the seed bed. If the seed is sown in rows, cultivation should be practised that summer. The following spring the seedlings should be transplanted to their permanent location.



BOOK REVIEW

by
W. A. Simmons

Try These Indoors, by Allen H. Wood Jr., Published by Hale, Cushman & Flint, 116 Newbury St., Boston, Mass. Price \$1.75.

In this season, gardeners are compelled to withdraw indoors in their gardening operations and this book is written especially for the advanced students who have gone beyond the geranium, coleo and paper white narcissus stage of the art and long for something different. In an earlier book, "Grow Them Indoors", the author has given exhaustive directions for the growing of the more common house plants and has written this book for those who want something different.

In this book you will find few plants described that you have ever heard of but it will widen your horizon to a class of beautiful plants that with the information given in this book, can be easily added to your window garden and that will make the neighbors sit up and take notice. While rare and little known, these plants are all obtainable and very much worth while and will add a lot of beauty to your collection and a new interest in watching the development of a new and unknown plant. This is not a book to be merely read and then discarded, but one that you will want to add to your reference library and have constantly at hand. The price of this 236-page book is low enough to be within the reach of every one and if but two of these plants are tried yearly, it will add a lot of interest to your indoor gardening season.

THE DUCK HAWK

(Continued from page 38.)

swift flight and ability to capture game such as grouse. One prize bird in England is recorded as killing 57 grouse, 76 partridges, 5 pheasants, 3 hares and 5 other birds during one year. Another killed 129 birds in 132 flights.

Mr. A. C. Bent states that pigeons, flickers, jays, meadowlarks and other birds of similar size probably constitute the bulk of the food in inland localities and the smaller sea birds on the coasts. Louis Agassiz Fuertes, the noted painter of bird pictures, recorded that one pair of hawks brought 16 pigeons to the nest in one day. A few mammals and insects are taken. Small birds are seized in the claws but larger ones simply struck with great force and knocked to the ground.

Probably no other bird has been so greatly admired and purely for its flying ability. It was

the favorite bird of Fuertes and he, gentle man that he was, admitted that he felt all fierce and "hawky" after painting the bird. Joseph A. Hagar of Massachusetts wrote of the mating season: "So wonderful are the aerial evolutions of the peregrines during this season that I am inclined to think that no observer can fully appreciate their powers of flight who has not seen them at the nesting site on a windy March day." The speed of birds flight used to be greatly overestimated and recent careful observations rate ordinary flight at 20 or 30 to 50, rarely 60 miles per hour. The duck hawk, however, is still credited with being able to do 175 miles in a quick swoop.

PRESIDENT'S CORNER

(Continued from page 42.)

dragons, marigolds and perennial larkspur—no snowballs."

Webster must have an outcropping of the Garden of Eden, horticulturally I mean.

The April poem is by William Watson, and perhaps applies to the South Dakota Horticultural Society,

The New Age stands as yet
Half built against the sky
Open to every threat of storms that clamor by;
Scaffolding veils the walls,
And dim dust floats and falls,
As moving to and fro, their tasks the masons ply.
—William Watson.

APRIL NOTES

(Continued from page 43.)

chase all these without the customary red tape. Instead of the usual and sometimes misleading word "hardy", after each item, the minimum midwinter temperature for the last 5 years at Dropmore is quoted, ranging from 40 to 50 below zero.

GLADIOLAS

NORTHERN GROWN BULBS

We specialize in varieties which are consistently satisfactory performers under ordinary garden conditions.

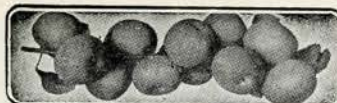
The best of the NEW and also the standard Glads at surprisingly low prices.

MAY WE SEND YOUR OUR
INTERESTING CATALOG?

GEO. E. MILLEN

SHEYENNE,

NORTH DAKOTA



MANITOBA NEWS LETTER

(Continued from page 41.)

fruit growing simply because he has not an ideal site. The main thing would seem to be adequate protection which has to be developed by shelterbelts.

Factors in selecting the site are,—convenience to buildings, taking advantage of the natural contours so as to utilize as far as can be done the natural spring run-off from melting snow collected by the shelterbelts, and proximity to the farm dugout so that surplus water can be made available for irrigation.

The site being chosen, shelterbelts are planned. Ample room is allotted for a generous sized garden. One half the area may be summer-fallowed each year. Shelter is to be on all four sides as severe windstorms may come from any point of the compass. The main belt consists of at least 3 to 5 rows of trees. The inside row will be at least 20 feet from the nearest fruit trees or garden crops. Hardy evergreens make the ideal shelter. Broadleaf varieties, such as caragana, boxelder, elm and ash develop more quickly and afford good protection in from 4 to 6 years. Evergreens should, where possible, be planted to supplement the main belt and will increase in effectiveness as years go by.

The new purple raspberry from the North Dakota Agricultural College, Ruddy, is proving its worth in prairie Canada. It is a cross between Latham and Plum Farmer, and thus belongs to the class known as Purple Cane. Particular note is made of its extreme productivity. This variety should prove acceptable to market and home gardeners alike.

At the Morden Station, Ruddy is proving to be extremely prolific. A two-year-old planting last season was loaded heavily. The berries change from red to dark purplish-red when fully ripe. Its flavour is fairly sweet, although probably not the equal of the two popular reds, Chief and Herbert. It is medium in size and, when canned, a rich colour with good flavour.

The plants are fairly tall, but the fruiting wood tends to bend down, so that it would be advisable to adopt some method which will assure soil free berries. Staking may be resorted to. A simple method is to use two wire supports along either side of the row, the height above the ground depending upon the size of the canes. What is probably a cheaper and quicker method is to place a mulch under the plants just before the fruiting season. The mulch may consist of any kind of straw, or even small brush. This will keep the low bending branches from touching the soil, and hence the berries will remain reasonably clean.

A further feature of Ruddy is that it is very early in season, and at Morden has been coming into production about the same time as the early red raspberry, Chief.

One of the main advantages of the purple raspberry is that it does not sucker so early as the reds, a factor which makes a plantation easier to keep within bounds, by automatically eliminating a good deal of pruning work. Ruddy has, however, suckered to a certain extent in the plantings at the Morden Station, although not to the extent of the red raspberries. This factor has enabled the variety to be propagated quite readily. Ruddy has been quite hardy, although some seasons winter injury has been observed in tips killing back a foot or more. This may be attributed in part at least to drought. The yield has not been seriously affected from tip injury.

NEWSLANTS

(Continued from page 39.)

these new rhubarbs. From what I have seen and tasted, they should not be mentioned in the same breath with some of the varieties of "inedible Burdock", found growing in many gardens.

Our British gardening cousins are in need of seeds of onions, carrots, beans, cauliflower, leeks, parsnips, and tomatoes. Anyone having any seeds they would like to contribute can send them to The British War Relief Society, 730 Fifth Avenue, New York City.

In a recent newsletter, W. R. Leslie comments on the varieties of lettuce. N. Y. No. 12 does as well as any for them at Morden. We have heard some good reports of N. Y. No. 515 in Dakota. Of course they should be started indoors in order to get heads before hot weather.

An interesting article entitled "Production of Spinach Seed" appeared in Seed World for February 7, 1941. It is by Frank Leckenby of the Leckenby Seed Co., Seattle, Washington. He points out that the Puget Sound area is admirably adapted and that the only other important possible area is the North Atlantic coast. Quite a quantity of spinach seed was grown in New York State twenty years ago. He states that spinach seed grown under irrigation is not of good germination, that the soil should have no trace of acidity, and that there must be cool, moist weather during the blooming state. Most of the spinach seed nowadays comes from strains which have been selected for monoecious plants, that is which have both male and female flowers on a single plant, instead of having male flowers on one plant and female flowers on another.